



United States Department of Agriculture  
Rural Development

Rural Business-Cooperative Service • Rural Housing Service • Rural Utilities Service  
Washington, DC 20250

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September 11, 1997

Office of the Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Room 222  
Washington, D.C. 20554

To whom it may concern:

The Rural Utilities Service (RUS) hereby reports *ex parte* representations to members of the Federal Communications Commission (Commission) staff on September 3, 1997, at Commission offices at 2100 M Street. The meeting was open to the public and is one of a series of regular weekly meetings being held by Commission staff to analyze cost models as they relate to universal service support (CC Docket Nos. 96-45 and 97-160). The focus of the meeting was customer location.

A list of attendees for the meeting is enclosed. We obtained this list from Mr. Charles Keller of the Commission.

The following contributions were offered by the RUS attendees at this meeting. We have added details in some cases to ensure clarity.

#### Geocoding of Rural Households

The sponsors of the Hatfield model discussed their attempts to model the customers' actual location by using a direct mail database. According to the slides prepared by the Hatfield sponsor, households in 77% of all rural census blocks are geocoded. Other information on their slides showed that only 44% of rural households are within that 77% of geocoded census blocks. If we understand these slides correctly, this means that no more than 34% of rural households are geocoded.

The RUS is concerned that with such low representation of geocoded households in rural areas, the model will still have to rely predominately on modeling assumptions of customer location. Even in census blocks where some but not all rural customers are geocoded, there can be no assurance that the sample represents the block proportionally. A better database of customer location geocodes must be found before the use of actual locations will represent an improvement in resolution for rural areas.

#### Resolution of the Model

In reaction to discussion about excessive computer run-times, RUS suggested that model resolution need not be constant, i.e. the model could analyze the low density areas with greater precision than the high density areas. Averaging over a large sample is not harmful when there is consistency within the sample.

On the other hand, when a sample is not consistent, such as may be the case in a census block group or census block with large area or low density, averaging will obscure details such as the dispersion of customers and therefore could be very harmful. This suggests that the resolution does not need to be a constant in the model. This fact can be used to make the model run more efficiently, while maintaining the needed resolution to provide accurate cost estimation in low density areas.

In any case, concerns about model complexity and computer run times are trivial compared to the importance of the accuracy of these models.

The RUS also questions the aggregation of cost to the wire center level. As model sponsors are raising the resolution of the models by proposing to use geocoded customer location, they still talk of aggregating the costs to the wire center level. This causes the models to lose most of the benefits of their higher resolution. Competition will come to an area line by line. Rural costs are highly variable over an exchange area. Support needs to be accurately targeted over a rural exchange which includes higher density and lower density areas. Otherwise, support in some areas (higher density) will be a little too high while support in other areas (lower density) will be a lot too low.

These errors in support levels will no longer average once competition comes to an area. Competitors will probably serve the higher density customers first, so some carriers will lose customers which may have been adequately or more-than-adequately supported, while they retain customers which are inadequately supported. If the proxy models calculate support on a line-by-line basis, or at least on a census block-by-census block basis, support should be adequate for all customers.

The models should also have a mechanism for adjusting support levels to compensate for an Eligible Telecommunications Carrier's (ETC) losing market share. If an ETC loses its business customers, and some of its high density customers, universal service in rural areas will be threatened.

### Plant Layout

Neither model is specifically linking plant construction to roads. The RUS stated that plant is not built "as the crow flies" because it is cost prohibitive. If the models are going to persist in placing both feeder and distribution plant along hypothetical routes that do not follow roads, additional costs are going to have to be included in plant estimates.

The cost of cross-country rights-of-way will become a major additional cost of plant. Landowners in rural America regard their land as a revenue-earning asset. Whether they farm it, graze it, subdivide it, lease it, or simply hold it, they know that land is money. They have high expectations that any use of their land by another party will provide them a substantial return. As a result, as early as the 1970's, RUS knew that private right-of-way, even just inside the fence along roadways, was becoming unaffordable. Public right-of-way remained essentially free-of-charge, although with time states and local governments imposed conditions upon its use. In addition, landowners know that when they allow a rural utility to use their land for cable placement, it is just the beginning. The utility will travel the right-of-way occasionally for maintenance of its plant, and eventually will place more plant along the right-of-way. Many rural landowners, particularly farmers and ranchers, refuse their RUS-financed LECs any access, even though these LECs are member-owned cooperative-type organizations.

A second cost that would need to be added is the cost of clearing and site preparation. Highway rights-of-way are cleared and maintained by highway departments. Utilities using them do not have to bulldoze woods or smooth bluffs to run their cable. When they reach rivers, they can attach to bridges, rather than constructing elaborate aerial crossings such as pipelines must do.

Another cost involved with private right-of-way is the legal cost of negotiating agreements and filing them with appropriate courts. RUS borrower LECs using significant amounts of private right-of-way have had to keep a right-of-way specialist with the plow train during construction because many landowners forget that they have granted right-of-way, or change their minds when they see the aftermath of the construction.

A further complication with proposing that feeder and distribution plant be run "as the crow flies" is that no one, except perhaps the cross-country gas and oil pipeline industry, has cost information for this type of construction. No RUS borrower LEC runs plant in this manner. The most efficient construction projects are the ones that involve a minimum of private right-of-way.

The RUS appreciates the opportunity to attend these weekly meetings.

Sincerely,

A handwritten signature in black ink, appearing to read "Orren E. Cameron III". The signature is fluid and cursive, with the first name "Orren" being more prominent.

ORREN E. CAMERON III

Director

Telecommunications Standards Division

Enclosure

cc: Charles Keller, FCC  
Robert Loube, FCC  
Richard N. Clarke, AT&T  
Glenn Brown, US WEST  
Rowland L. Curry, Texas PUC

From: Charles Keller  
To: proponents  
Date: 9/3/97 5:29pm  
Subject: Meeting attendees

This is a list of the attendees at the noon meeting today, for purposes of the Hatfield team's ex parte filing:

Natalie Wales, FCC  
Bob Loube, FCC  
John Maslig, RUS  
Ed Cameron, RUS  
Gary Allan, RUS  
Jackie McGirr-Conti, BA  
Peggy Lonergan, BA  
Ed Barber, BA  
Vaikunth Gupta, FCC  
Bill Sharkey, FCC  
David Porter, WorldCom  
Mark Kennet, FCC  
Mike Lieberman, ATT  
Kevin Landis, PNR  
Chris Frencrup, MCI  
Roger Sherman, Sprint PCS  
Jon Chambers, Sprint PCS  
Christine Antis, PNR  
Pamela Fusting, NECA  
Whit Jordan, Bell South  
Glen Brown, USW  
Brian Staihy, Sprint  
Warren Hannah, Sprint  
Chris Habb, NECA  
Rowland Curry, TX PUC, Jt. Bd. staff  
Chuck Keller, FCC  
C. Anthony Bush, FCC  
Charlie Bolle, SD PUC, Jt. Bd. staff  
BCPM People

Phone:

Bridget Dufr, FL PUC, Jt Bd staff  
David Dowds, FL PUC, Jt Bd staff  
Geri Kenyon, AK PUC, Jt Bd staff  
Barry Payne, IN Ofc of Consumer Counsel, Jt Bd staff  
Peter Cassidy, NorTel  
Joe Ebs, GTE  
Tad Burnet, GTE  
John Schrotenboer, SBC  
Melissa Markely, Economics & Technology  
BCPM people